



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,430	04/01/2004	Gregory Plos	05725.1308-00	5737
22852	7590	06/08/2006	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			ELHILO, EISA B	
			ART UNIT	PAPER NUMBER
			1751	

DATE MAILED: 06/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application N .</b>	<b>Applicant(s)</b>	
	10/814,430	PLOS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Eisa B. Elhilo	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-53 and 56-60 is/are rejected.
- 7) ☒ Claim(s) 6, 7, 54 and 55 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/3/2006</u> | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1751

Claims 1-60 are pending in this application.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 8-23, 29-53 and 57-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunaga et al. (US 2001/0054206 A1) in view of Doehling et al. (US 5,961,667).

Matsunaga et al. (US' 206 A1) teaches a hair dyeing composition comprising a fluorescent of azomethine compound of a formula (2) as claimed in claims 1, 4 and 5 (see page 1, formula (2)), wherein the fluorescent compound is presented in the composition in the amounts of 0.01 to 20%, 0.05 to 10% or 0.1 to 5% as claimed in claims 8-10 (see pages 2-3, paragraph, 0016), nonionic surfactant in the amount of 24% as claimed in claims 22-23 (see page 5, Table 3), para-phenylenediamine as an oxidation base in the amount of 0.5 to 10% by weight as claimed in claims 29-31 (see page 3, paragraph, 0020 and paragraph, 0022), m-phenylenediamine as a coupler in the amount of 0.5 to 10% as claimed in claims 32-34 (see page 3, paragraphs, 0021 and 0022), oxidizing agent of hydrogen peroxide, perborates and laccase (four electron oxidoreductase) enzyme as claimed in claims 35-39 (see page 3, paragraphs, 0018-0019). Matsunaga et al. (US' 206 A1) also teaches a process for dyeing hair comprising applying

Art Unit: 1751

to the hair the dyeing composition as described above and whereas the dyeing composition is applied to the hair after mixing with the oxidizing composition as claimed in claims 41-42, 48 and 52-53 (see page 3, paragraphs, 0026 and 0027). Matsunaga et al. (US' 206 A1) further teaches a discloses a multi-compartment device for dyeing hair as claimed in claim 47 (see page 3, paragraph, 0026).

The instant claims differ from the reference by reciting a composition comprising at least one compound comprising an acid functional group selected from the claimed species.

However, Matsunaga et al. (US' 206 A1) suggests the use of acids such as ascorbic acid and phosphoric acid in the hair dyeing composition (see page 5, paragraph, 0036, Table 3).

Doehling et al. (US' 667) in analogous art of hair dyeing formulation, teaches a composition comprising acids such as hydrochloric acid, sulfuric acid, monocarboxylic acids such as acetic acid, amino acids such as lysine and arginine, polycarboxylic acids such as citric acid as claimed in claims 1 and 11-19 (see col. 2, lines 5-49), wherein these acids are presented in the composition in the amount of 0.2 to 7.5% which within the claimed percentage ranges as claimed in claims 20-21 (see col. 3, lines 18-22).

Therefore, in view of the teaching of the secondary reference, one having ordinary skill in the art at the time the invention was made would be motivated to modify the composition of Matsunaga (US' 206 A1) by incorporating the organic and inorganic acids as taught by Doehling et al. (US' 667) to make such a composition. Such a modification would be obvious because the primary reference of Matsunaga et al. (US' 206 A1) suggests the use of acids in the dyeing composition (see page, 3, paragraph, 0024). Doehling et al. (US' 667) as a secondary reference clearly teaches and discloses the species of the claimed acids and, thus, a person of the ordinary

Art Unit: 1751

skill in the art would be motivated to incorporate the species of these acids as taught by Doehling et al. (US' 667) in the dyeing composition of Matsunaga (US' 206 A1) with a reasonable expectation of success for controlling the pH of the dye preparation so that the keratin fibers are dyed under very mild conditions and would expect such a composition to have similar properties to those claimed, absent unexpected results.

2 With respect to claims 2-3, 40, 43-46, 49-51 and 57-60 it would have been obvious to one having ordinary skill in the art at the time the invention was made to formulate a dyeing composition comprising a fluorescent dye that provides maximum reflectance as claimed and wherein the composition can be applied to skin or different type of hair as claimed because the combined references of Matsunaga et al. and Doehling et al., teach and disclose the claimed components of a fluorescent dye and acids, and thus, a person of the ordinary skill in the art would expect such a composition to have similar physical properties including reflectance and whereas the composition can be applied to the skin and different hair types as claimed, absent unexpected results.

3 Claims 24-27 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunaga et al. (US 2001/0054206 A1) in view of Doehling et al. (US 5,961,667) and further in view of Rondeau (US 6,436,153 B2).

The disclosures of Matsunaga et al. (US' 206 A1) and Doehling et al. (US' 667) as described above, do not teach or disclose the direct dyes as claimed and also do not teach the fluorescent compound of the claimed formula (F4) in which X- is an anion chosen from the claimed radicals.

Art Unit: 1751

However, Matsunaga et al. (US' 206 A1) suggests that other direct (fluorescent) dyes may be used in the dyeing composition (see page 2, paragraphs, 0014 and 0015).

Rondeau (US' 153 B2) in analogous art of hair dyeing formulation, teaches a composition comprising cationic azo dyes as claimed in claims 24-25 (see cols 7-8), wherein the dyes presented in the amounts of 0.00 to 5% as claimed in claims 26-27 (see col. 17, lines 38-40). Rondeau also teaches a fluorescent dye having a formula similar to the claimed formula (F4) as claimed in claim 56 (see col. 7, formula 14).

Therefore, in view of the teaching of the secondary reference, one having ordinary skill in the art at the time the invention was made would be motivated to modify the composition of Matsunaga (US' 206 A1) by incorporating the cationic dyes as taught by Rondeau (US' 153 B2) to make such a composition. Such a modification would be obvious because the primary reference of Matsunaga et al. (US' 206 A1) suggests the use of fluorescent dyes in the dyeing composition (see page 2, paragraph, 0014). Rondeau (US' 153 B2) as a secondary reference clearly teaches and discloses the fluorescent compound and the cationic dyes of the claimed species, and, thus, a person of the ordinary skill in the art would be motivated to incorporate the fluorescent compound and the cationic dyes of the claimed species as taught by Rondeau (US' 153 B2) in the dyeing composition of Matsunaga (US' 206 A1) with a reasonable expectation of success for improving the dyeing properties of the composition and would expect such a composition to have similar properties to those claimed, absent unexpected results.

4 Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunaga et al. (US 2001/0054206 A1) in view of Doehling et al. (US 5,961,667) and further in view of Giuseppe et al. (US 5,744,127).

Art Unit: 1751

The disclosures of Matsunaga (US' 206 A1) and Dehling et al. (US' 667) as described above, do not teach or disclose dyeing compositions in forms of dyeing shampoos as claimed.

However, Matsunaga et al. (US' 206 A1) clearly teaches that no particular limitation is imposed on the form of the hair dyeing composition (see page 3, paragraph, 0027).

Giuseppe et al. (US' 127) in other analogous art of hair treating formulation, teaches a composition formulated as a hair shampoo and hair dyeing as well (see col. 6, lines 5-6).

Therefore, in view of the teaching of the secondary reference, one having ordinary skill in the art at the time the invention was made would be modified to formulate the dyeing composition of Matsunaga et al. in a shampoo form as taught by Giuseppe et al. to arrive at the claimed composition. Such a modification would be obvious because Giuseppe et al. clearly teaches that the dyeing composition can be formulated in a shampoo form, and, thus, one having ordinary skill in the art would be motivated to formulate the dyeing composition in any form including the shampoo form, and would expect such a composition to have similar properties to those claimed, absent unexpected results.

***Allowable Subject Matter***

5        Claims 6-7 and 54-55 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record do not teach or disclose a hair dyeing composition comprising fluorescent of the claimed formula (F3).

Art Unit: 1751

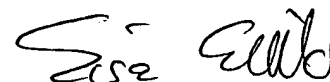
*Conclusion*

6 The references listed on from PTO-1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the rejection above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eisa B. Elhilo whose telephone number is (571) 272-1315. The examiner can normally be reached on M - F (8:00 -5:30) with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eisa Elhilo  
Primary Examiner  
Art Unit 1751

June 6, 2006